UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,037	01/08/2001	Terry Skemer	TR-053	4654

7590   04/05/2005

TROPIC NETWORKS INC.
Attention: Dr. Victoria Donnelly
135 Michael Cowpland Drive
Kanata, ON   K2M 2E9
CANADA

EXAMINER
SIMITOSKI, MICHAEL J

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _12 January 2005_.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-12 and 14-25_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-12 and 14-25_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some *   c) ☐ None of:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   The response of 1/12/05 was received and considered.

2.   Claims 1-12 & 14-25 are pending.

Response to Arguments

3.   In light of Applicant's response, the objections to the specification, objections to claims

10 & 19-21, rejections of claims 13 & 19b under 35 U.S.C. §112 ¶1 and claims 21b-24 under 35

U.S.C. §112 ¶2, set forth in the previous Office Action, are withdrawn.

4.   On p. 9 of Applicant's remarks, Applicant states that claim 20 has been cancelled,

however claim 20 appears in the listing of claims. *For the purposes of this Office Action, the*

status of claim 20 is understood to be "amended" and what was referred to as claim 21a in the

previous Office Action is understood to be "cancelled".

5.   Applicant's arguments with respect to claims 1-12 & 14-25 have been considered but are

moot in view of the new ground(s) of rejection, as Applicant's arguments on pp. 10-13 are

directed to the Howard and Sitaraman references and combinations therewith.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

7.   Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

written description requirement. The claim(s) contains subject matter which was not described

in the specification in such a way as to reasonably convey to one skilled in the relevant art that

the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 19, the specification does not clearly define network resource management.

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

9.   Claims 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Regarding claims 21-22 & 24, it is unclear how the agent can *include* a protocol.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

11.   Claim 1-4, 6-7, 11-12, 15, 17, 20 & 25 is rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Patent 6,463,474 to Fuh et al. (Fuh).

Regarding claims 1, 15 & 25, Fuh discloses receiving, at an access control

node/authentication proxy, which is operatively coupled to a plurality of user networks (Fig. 4), a

data unit/packet from a user located on one of the plurality of user networks (Fig. 4 & Fig. 7A

#702), determining whether the data unit/packet requires authentication (Fig. 7A, #703, 706), if

the data unit/packet requires authentication, determining whether authentication data/source IP

address is locally stored on the access control node/authentication proxy (Fig. 7A, #708), if the

authentication data/source IP address is locally stored on the access control node, authenticating

the data unit (Fig. 7A, #710, 712), if the authentication data/source IP address is not locally

stored on the access control node, determining whether the data unit is eligible for transmission

to the external network/target server (Fig. 4) and if the data unit/packet is eligible for

transmission to the external network, transmitting the data unit/packet from the access control

node/authentication proxy to the authentication server/AAA server of the external network (Fig.

7B, #728).

Regarding claim 2, Fuh discloses interrogating the user for access information/user name

and password (Fig. 7B, 724 & Fig. 5A).

Regarding claim 3, Fuh discloses receiving, at an access control node/authentication

proxy, an authentication message (col. 12, lines 43-44) for said data unit from the authentication

server/AAA server to permit the user to access the external network/target server (Fig. 7B, #730,

736, 740).

Regarding claims 4 & 17, Fuh discloses searching the authenticated data unit locally

stored on the access control node (Fig. 7A, #708).

Regarding claims 6, 11 & 20, Fuh discloses storing the authenticated data unit in a local

authorization table/cache on the access control node (Fig. 7B, #732).

Regarding claim 7, Fuh discloses searching the authenticated data units stored in the local

authorization table/cache on the access control node (Fig. 7A, #708).

Regarding claim 12, Fuh discloses determining the content of the authenticated data unit

at the access control node (col. 11, lines 46-48).

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

13.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to

claim 2 above, in further view of U.S. Patent 5,491,752 to Kaufman et al. (Kaufman). Fuh, as

modified above, lacks specifically encrypting the access information prior to transmitting it.

However, Kaufman teaches that to avoid password eavesdropping, it is known to encrypt the

password/access information (col. 3, lines 26-40). Therefore, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to encrypt the access

information. One of ordinary skill in the art would have been motivated to perform such a

modification to render eavesdropping useless, as taught by Kaufman (col. 3, lines 26-40).

14.   Claims 8, 9 & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh in

view of "AAA PROTOCOLS: Authentication, Authorization and Accounting for the Internet",

by Metz. Fuh is silent regarding the particular AAA protocol used in the authentication server.

However, Metz teaches that RADIUS is the best-known and most widely used AAA protocol (p. 76, §RADIUS). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the remote authentication dial-in user service protocol in the authorization server/AAA server and access control node (Fuh, col. 10, lines 49-58). One of ordinary skill in the art would have been motivated to perform such a modification to use a widely used AAA protocol, as taught by Metz (p. 76, §RADIUS).

15. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to claim 3 above, in further view of U.S. Patent 5,546,387 to Larsson et al. (Larsson). Fuh, as modified above, lacks packet-labeling the data unit. However, Larsson teaches that data labeling is required in a packet network so that data packets can be uniquely assigned a connection and routed between nodes (col. 1, lines 16-27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to packet-label the data unit. One of ordinary skill in the art would have been motivated to perform such a modification to uniquely assign the data unit a connection and route the data unit between nodes in a network, as taught by Larsson (col. 1, lines 16-27).

16. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to claim 1 above, in further view of U.S. Patent 6,377,955 to Hartmann et al. (Hartmann). Fuh, as modified above, lacks collecting statistical usage information at the access node. However, Hartmann teaches that when network access servers/access nodes are part of an ISP, accurate accounting of connection time is required so customers are billed correctly (col. 1, lines 34-56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to collect statistical usage information at the access node. One of ordinary skill in the art would have been motivated to perform such a modification to ensure accurate accounting of connection time so customers are billed correctly, as taught by Hartmann (col. 1, lines 34-56).

17.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to claim 15 above, in further view of U.S. Patent 5,903,564 to Ganmukhi et al. (Ganmukhi). Fuh lacks the user network interface including a plurality of ingress cards and the external network interface including an egress card. However, Ganmukhi teaches that ATM switches (devices for receiving and sending packets) typically include ingress cards and egress cards to support multiple connections in transmitting data (col. 1, lines 13-29). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a plurality of ingress cards and an egress card. One of ordinary skill in the art would have been motivated to perform such a modification to support the transmission of packets from multiple connections, as taught by Ganmukhi (col. 1, lines 13-29).

18.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to claim 15 above, in further view of U.S. Patent 6,311,275 to Jin et al. (Jin). Fuh lacks the authentication agent including network address assignment and release means. However, Jin teaches that in order for a network to communicate with the user, and IP address must be assigned, which can be done by the AAA server (col. 2, lines 34-44). Therefore, it would have

been obvious to one having ordinary skill in the art at the time the invention was made to

include, in the authentication agent/AAA server, means to assign and release IP addresses. One

of ordinary skill in the art would have been motivated to perform such a modification to allow

the network to communicate with the user, as taught by Jin (col. 2, lines 34-44).

19.   Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to

claim 15 above, in further view of U.S. Patent 6,466,977 to Sitaraman et al. (Sitaraman),

Hartmann and U.S. Patent 6,510,454 to Walukiewicz. Fuh lacks service level enforcing means,

network resource management means, statistical usage information and alarm-monitoring means.

However, Sitaraman teaches that it is desirable to load balance among instances of AAA services

and to route a user to a sub-service provider based on service level agreements (SLA) (col. 3,

lines 14-41). Therefore, it would have been obvious to one having ordinary skill in the art at the

time the invention was made to further include service level enforcing means. Therefore, it

would have been obvious to one having ordinary skill in the art at the time the invention was

made to load balance among instances of AAA services and to route users to sub-service

providers based on SLAs, as taught by Sitaraman (col. 3, lines 14-41). Further, Sitaraman

teaches that it is desirable to decide the AAA service/resource to use based on parameters such as

quality of service, available bandwidth, etc. (col. 3, lines 14-41). Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to include

network resource management means. One of ordinary skill in the art would have been

motivated to perform such a modification because it is desirable to do so, as taught by Sitaraman

(col. 3, lines 14-41). Further, Hartmann teaches that when network access servers/access nodes

are part of an ISP, accurate accounting of connection time is required so customers are billed correctly (col. 1, lines 34-56). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include means for statistical usage collection. One of ordinary skill in the art would have been motivated to perform such a modification to ensure accurate accounting of connection time so customers are billed correctly, as taught by Hartmann (col. 1, lines 34-56). Further, Walukiewicz teaches that network alarm monitoring is needed to quickly correct the problem via a technician or an automated algorithm (col. 1, lines 19-33). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include alarm-monitoring means. One of ordinary skill in the art would have been motivated to perform such a modification to correct problems via a technician or an automated algorithm, as taught by Walukiewicz (col. 1, lines 19-33).

20.   Claims 21-22, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh, as applied to claim 15 above, in further view of "PPP Authentication Protocols" by Lloyd et al. (Lloyd). Fuh lacks the authentication agent including a PAP or CHAP protocol. However, Lloyd teaches that PAP and CHAP are both well-known methods of verifying the identity of a peer (pages 1-8, §2-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a password authentication protocol or the challenge handshake authentication protocol client in the authentication agent. One of ordinary skill in the art would have been motivated to perform such a modification to verify the identity of a peer, as taught by Lloyd (pages 1-8, §2-3).

21.   Claim 23, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable

over Fuh, as applied to claim 15 above, in further view of "An Access Control Protocol,

Sometimes Called TACACS" by Finseth. Fuh, as modified above, lacks the authentication agent

including a terminal access controller access control system. However, Finseth teaches that

TACACS is a protocol that allows an authentication server to receive a username and password

to accept or deny requests for access (page 1, ¶2-3). Therefore, it would have been obvious to

one having ordinary skill in the art at the time the invention was made to include a TACACS

system in the authentication agent. One of ordinary skill in the art would have been motivated to

perform such a modification to accept or deny requests for access on dial up lines, as taught by

Finseth (page 1, ¶2-3).

Conclusion

22.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

23.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841.

The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The

examiner can also be reached on alternate Fridays from 6:45 a.m. – 3:15 p.m.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

        supervisor, Gregory Morse can be reached at (571) 272-3838.

Any response to this action should be mailed to:
        Commissioner of Patents and Trademarks
        Washington, DC 20231
Or faxed to:
        (703)746-7239 (for formal communications intended for entry)
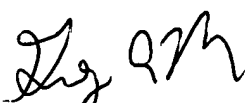**Or:**
        (571)273-3841 (Examiner's fax, for informal or draft communications, please
        label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application or proceeding should
be directed to the receptionist whose telephone number is (571) 272-2100.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJS
March 21, 2005

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100